

Figure 1

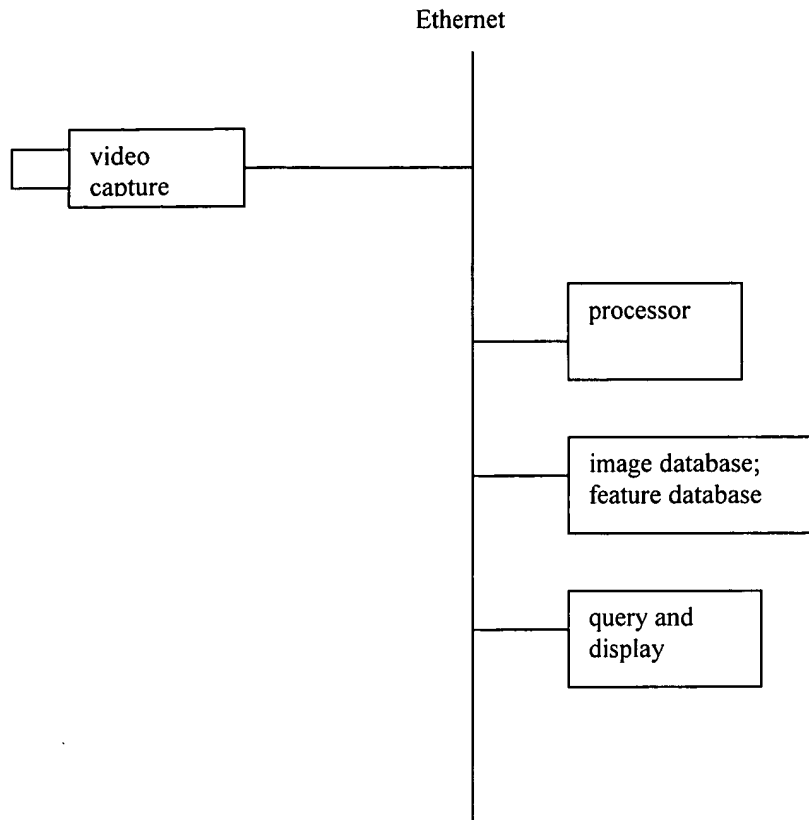


Figure 2

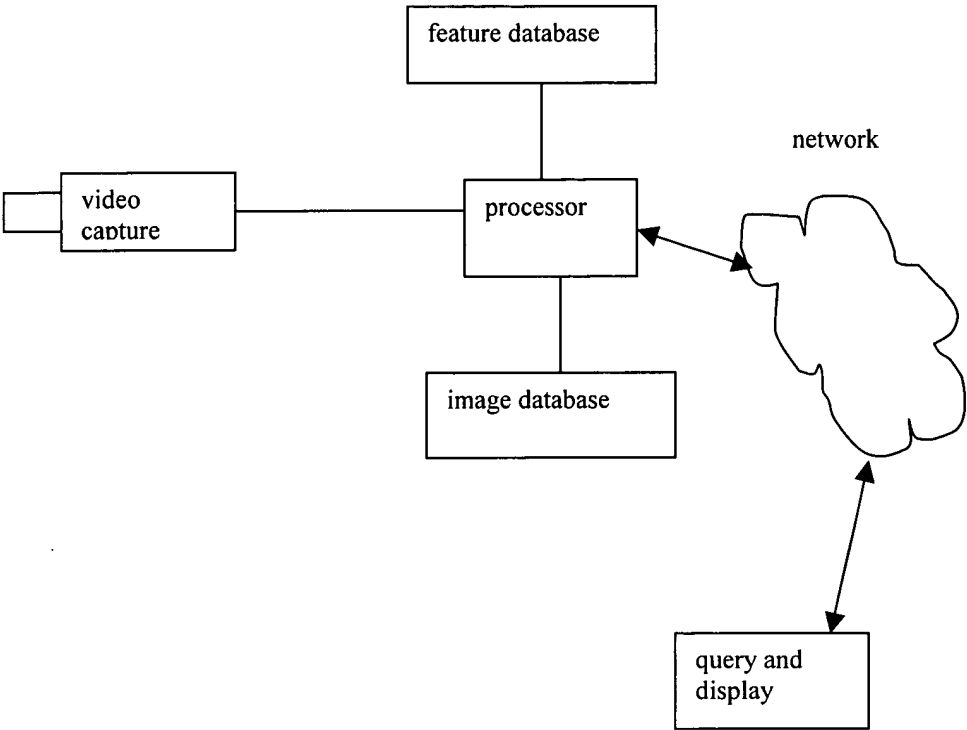


Figure 3

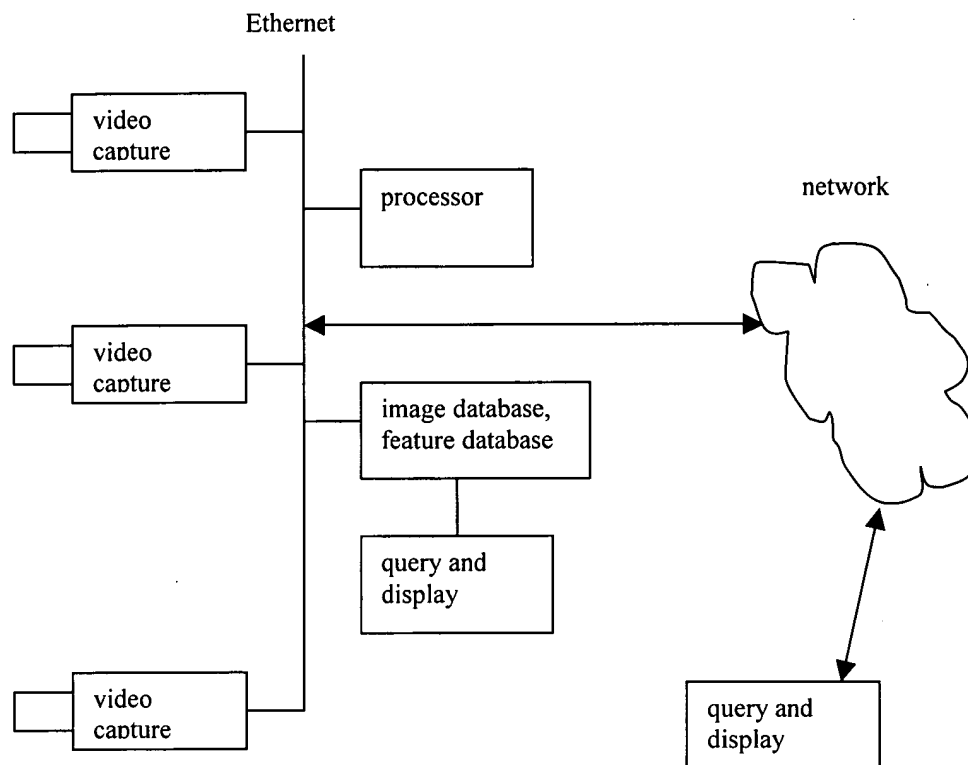
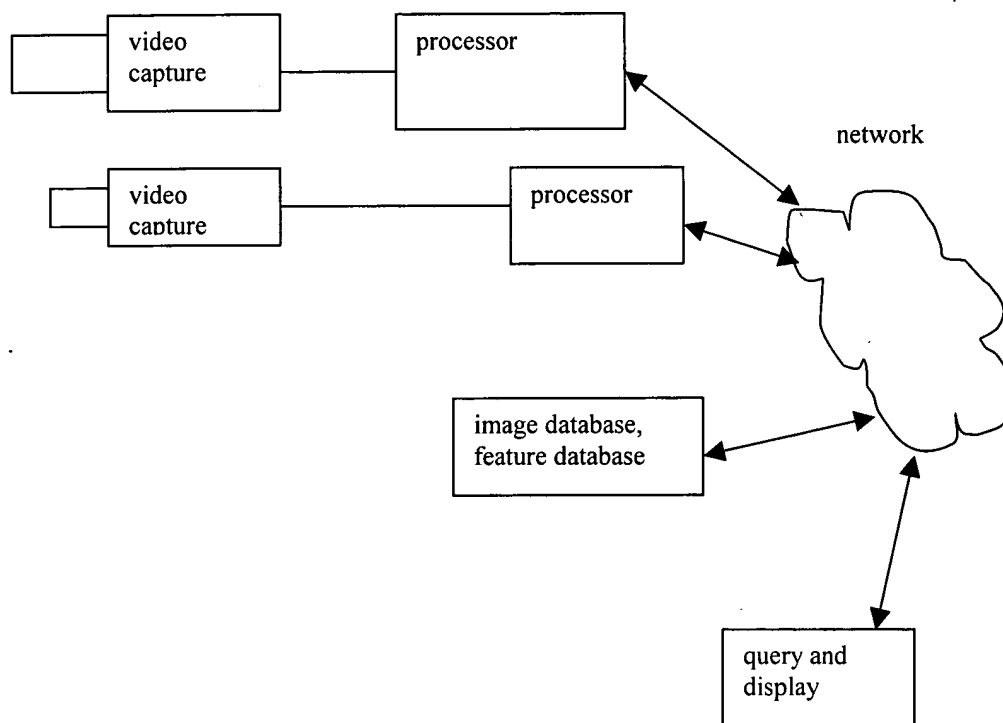


Figure 4



Figures 5-35

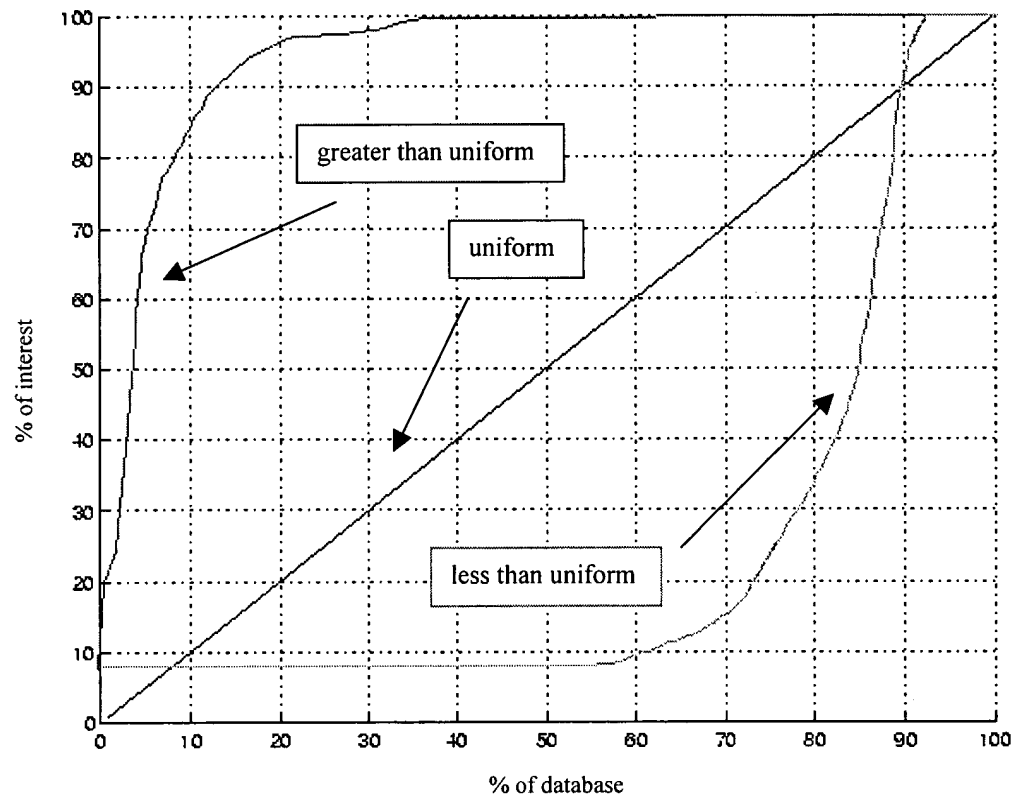


Figure 5: Efficiency plotted for three scenarios, better than random, random, and worse than random.

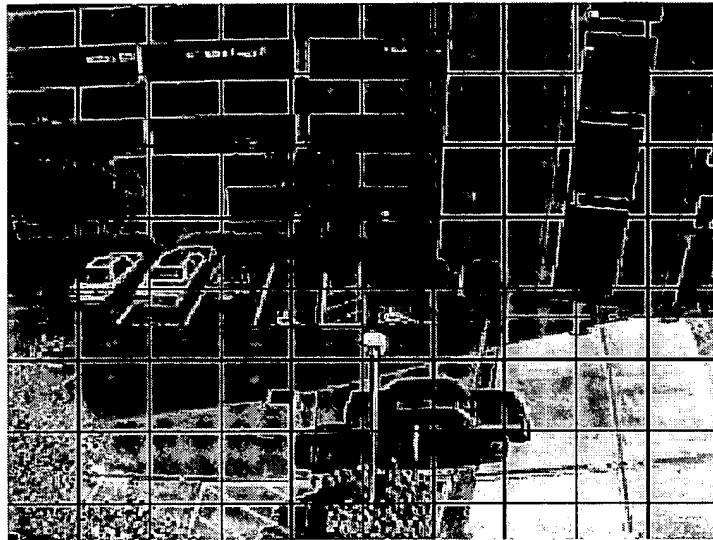


Figure 6: Vehicle traversing the field of view. The $mxn = 10 \times 8$ grid partitions the image into 80 30×32 pixel grid blocks.



Figure 7: A person traversing the field of view. The $mxn = 20 \times 15$ grid partitions the image into 300 16×16 pixel grid blocks.

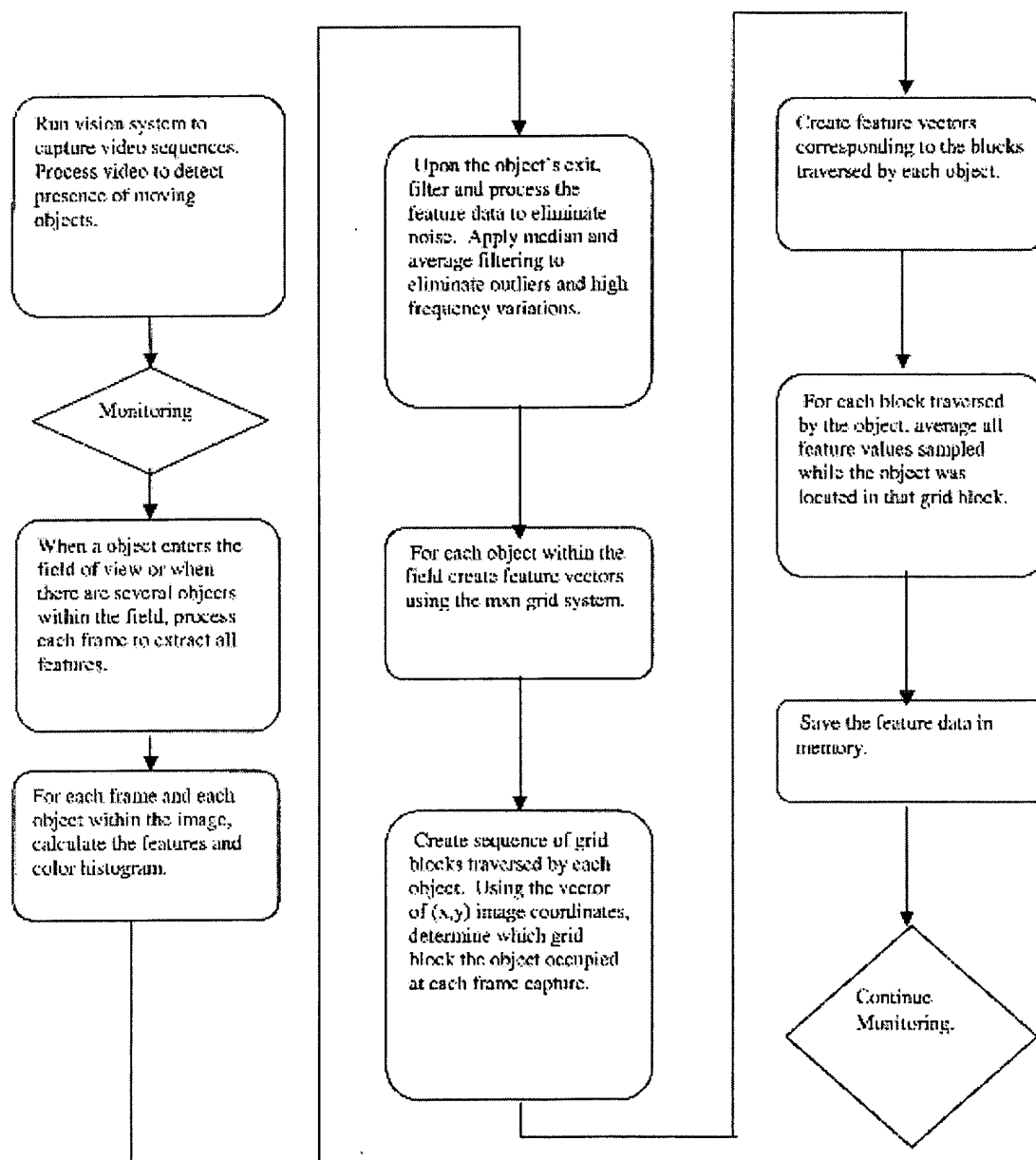


Figure 8: Feature generation software flow chart.

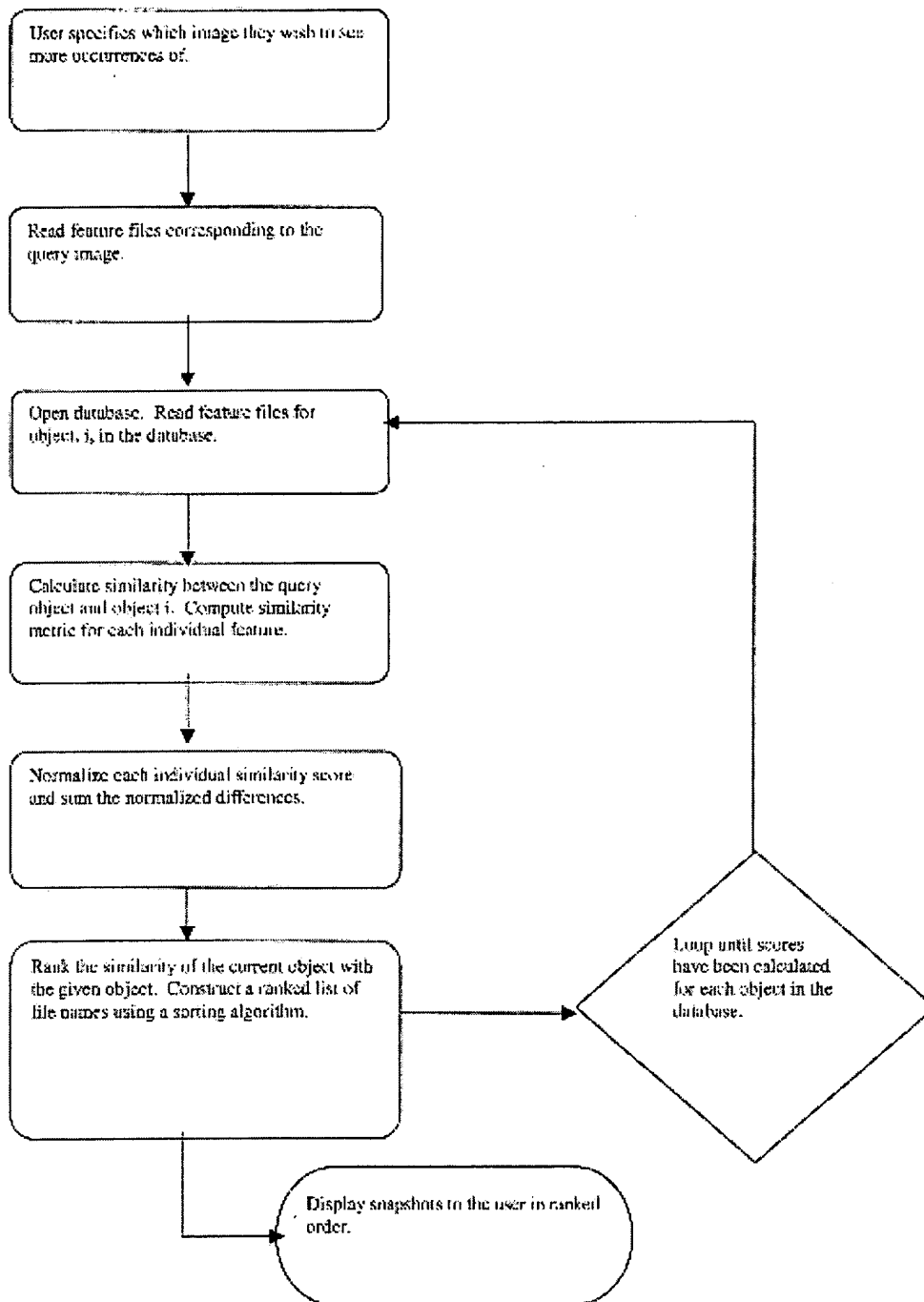


Figure 9: Image indexing software flow chart.

Figure 1 displays 15 plots arranged in a 3x5 grid, showing the distribution of features for different image regions. Each plot has 'Feature' on the x-axis (0 to 200). The y-axis scales vary by plot. The plots show various distributions: constant, step-like, noisy, linear, and peaked. A small inset image of a person is shown in the bottom right corner.

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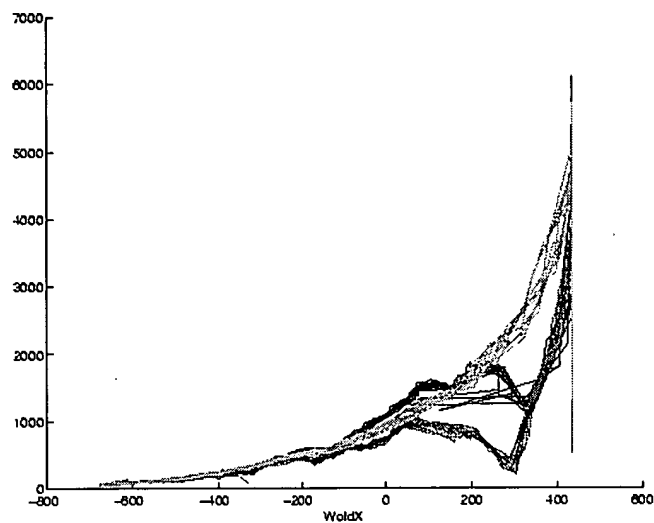


Figure 11 Feature5 verses position from camera. Each color represents a different individual.

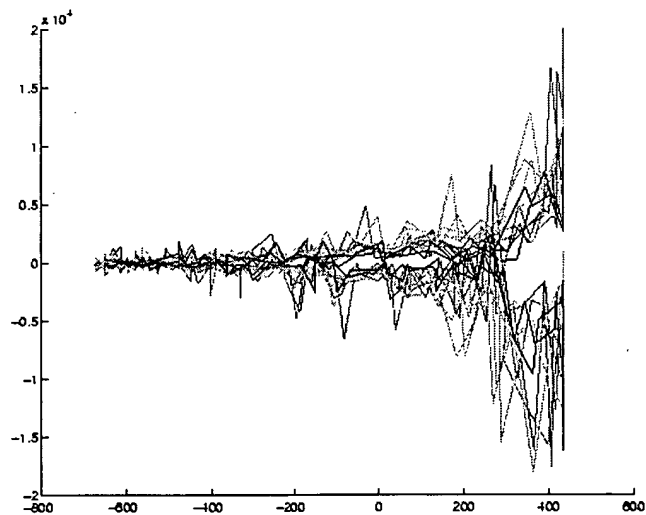


Figure 12 Feature3 verses position from camera. Each color represents a different individual.

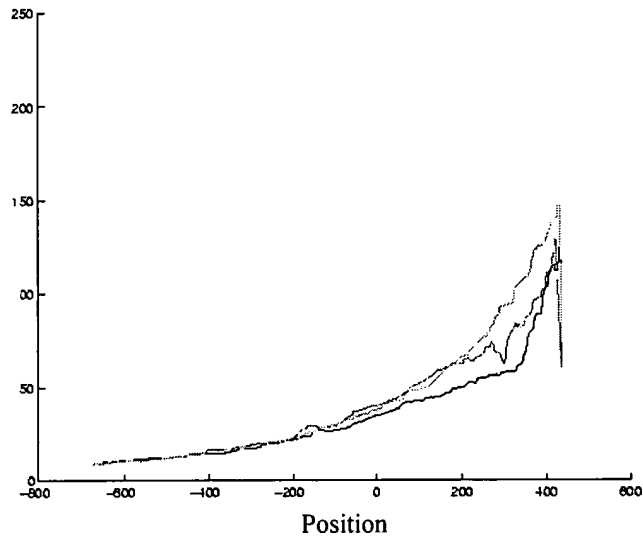


Figure 13 Feature5 verses position from camera for three objects. The curves in this plot result from applying a median and average filter to the data. Each color, except yellow, represents a different individual. The yellow curves represent the processed signal.

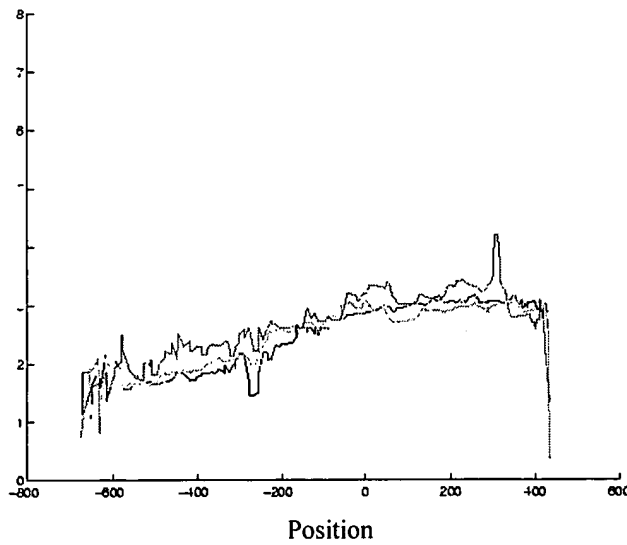


Figure 14 Feature3 verses position from camera. The curves in this plot result from applying a median and average filter to the data. Each color, except yellow, represents a different individual. The yellow curves represent the processed signal.

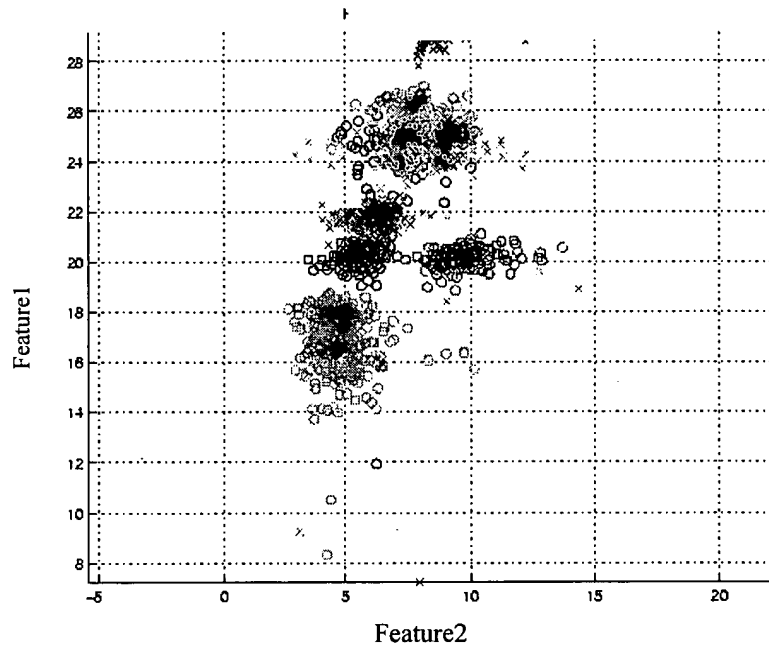


Figure 15: Feature1 and Feature2 clusters created by plotting every valid value extracted from each frame

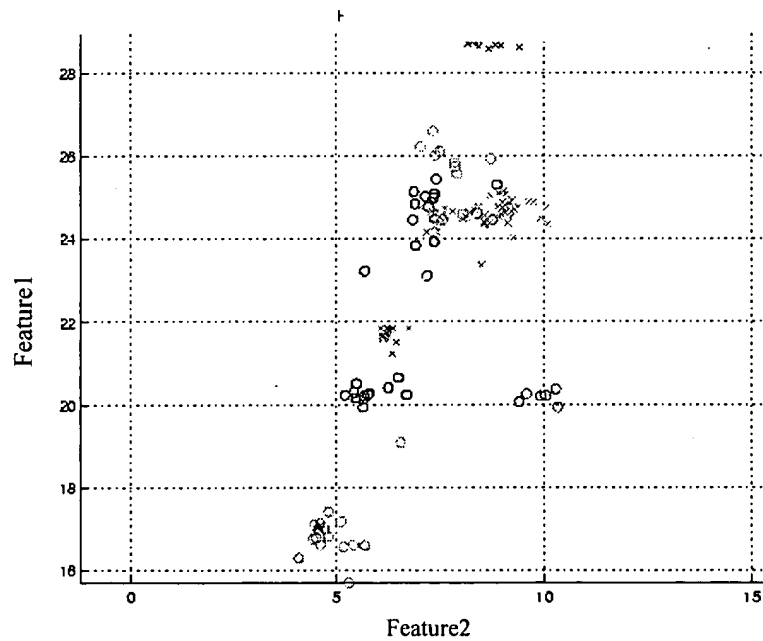


Figure 16: Feature1 and Feature2 clusters created by plotting the average of every valid value extracted as the object traversed the field of view.

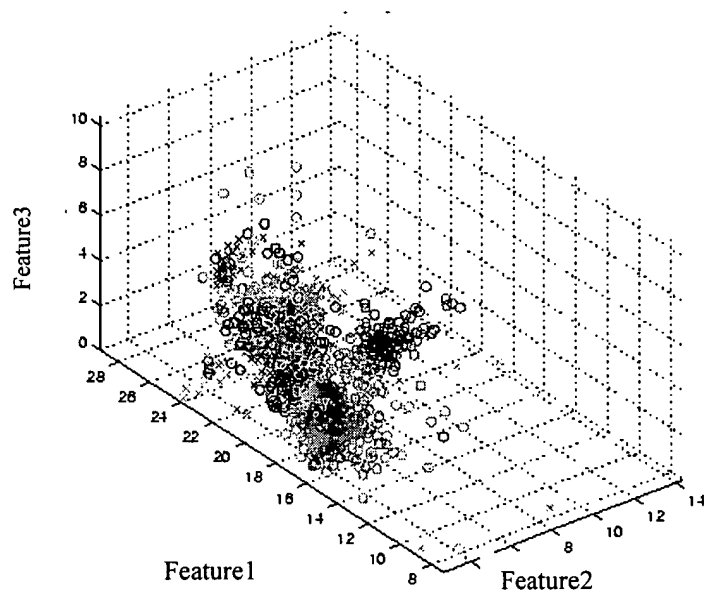


Figure 17: Feature3, Feature1, and Feature2 clusters created by plotting every valid value extracted from each frame.

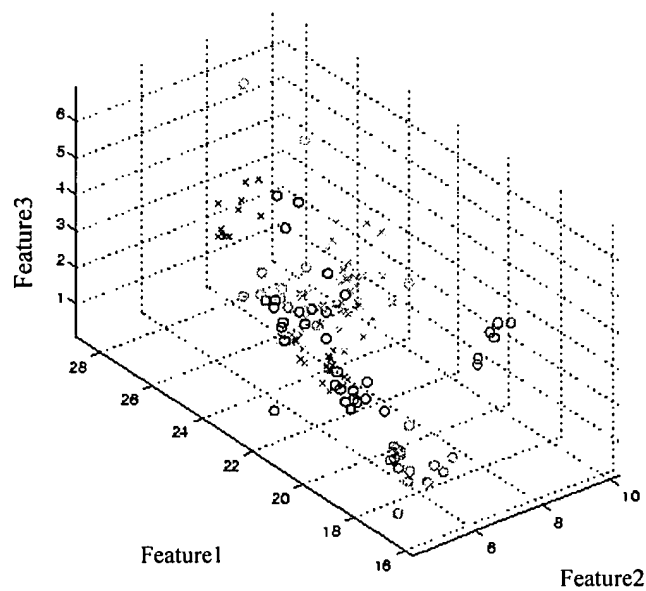


Figure 18: Feature3, Feature1, and Feature2 clusters created by plotting the average of every valid value extracted as the object traversed the field of view.

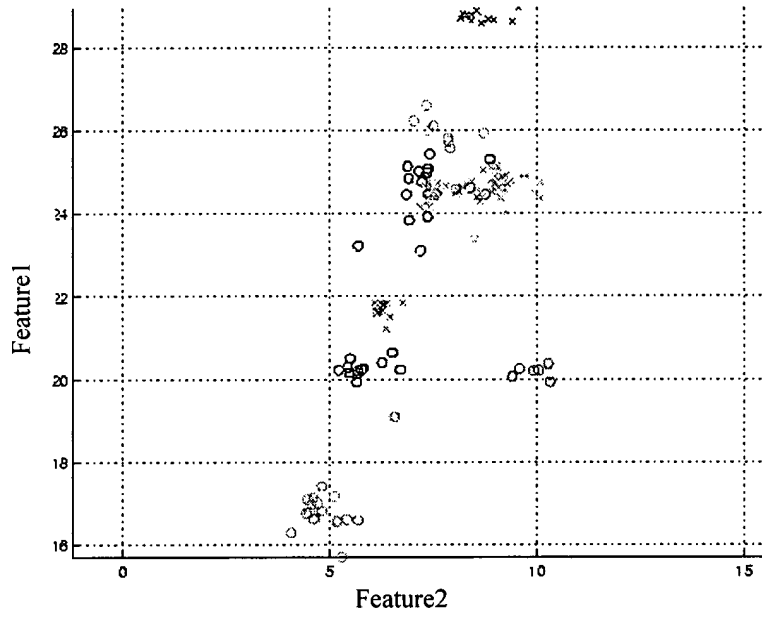


Figure 19: Normalized clusters for Feature1 and Feature2 in combination.

A scatter plot showing the relationship between Feature1 (X-axis) and Feature4 (Y-axis). The X-axis ranges from 16 to 28 with major ticks every 2 units. The Y-axis ranges from 1 to 11 with major ticks every 1 unit. The plot contains three data series: circles, crosses, and squares. The circles are clustered in three main regions: a small group at (16.5, 8.2), a larger group between Feature1 values of 20 and 21 and Feature4 values of 4 to 8, and a large, dense cluster between Feature1 values of 24 and 27 and Feature4 values of 5 to 8. The crosses are clustered between Feature1 values of 21 and 23 and Feature4 values of 6.5 to 7.5. The squares are scattered, with one at (16.8, 7.1), one at (17.2, 6.2), one at (20.2, 5.7), one at (23.8, 6.8), and one at (24.2, 6.8).

A scatter plot showing the relationship between Feature2 (X-axis) and Feature4 (Y-axis). The X-axis ranges from 4 to 10, and the Y-axis ranges from 4 to 8.5. The plot displays three distinct data series: circles, squares, and crosses. All three series show a general downward trend as Feature2 increases. The circles are clustered in the upper-left region (Feature2 ~4.5-7.5, Feature4 ~6.5-8.0). The squares are located at higher Feature2 values (Feature2 ~5.5-9.5, Feature4 ~4.0-8.5). The crosses are distributed across the middle and right regions (Feature2 ~6.0-10.0, Feature4 ~5.0-7.5).

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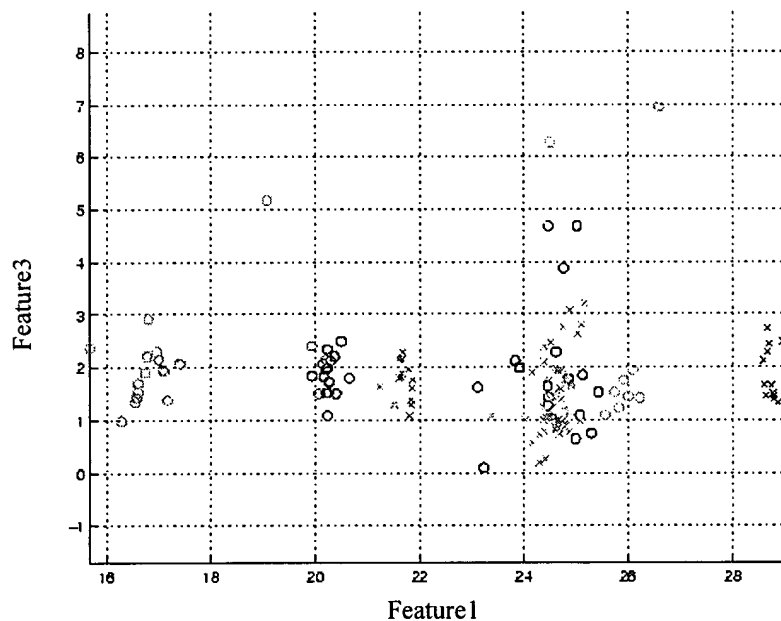


Figure 22: Normalized clusters plots for Feature3 and Feature1.

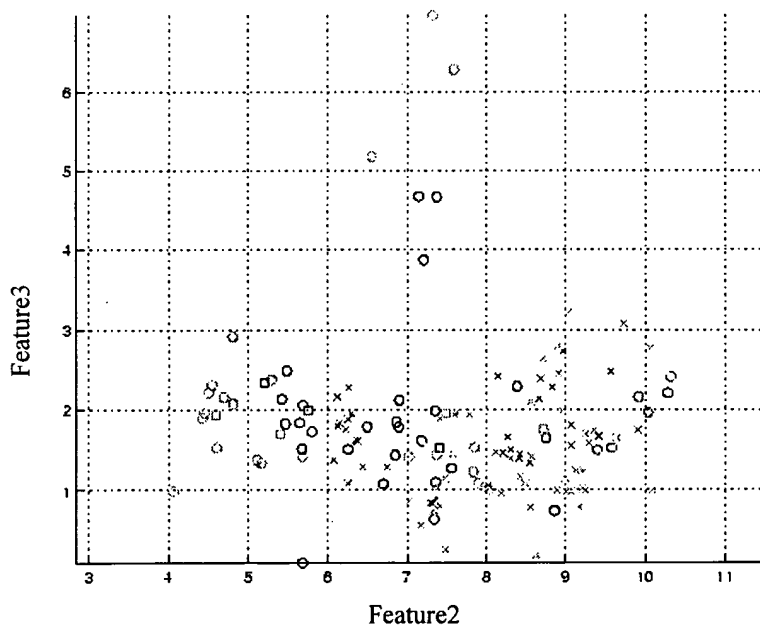


Figure 23: Normalized clusters for Feature3 and Feature2.

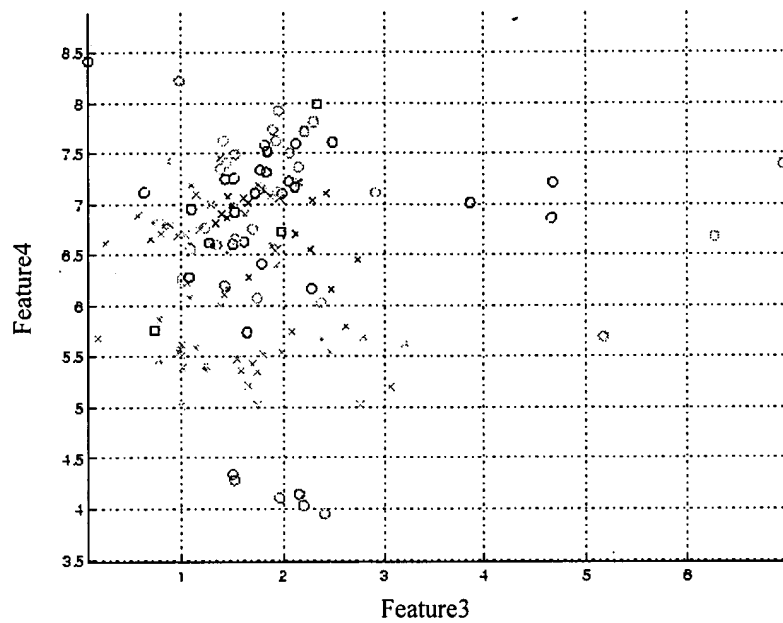


Figure 24: Normalized clusters for Feature4 and Feature3.

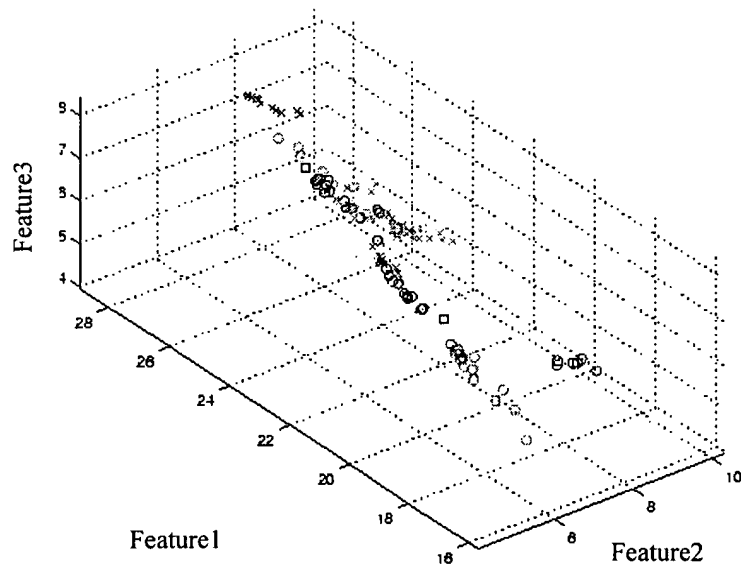


Figure 25: Normalized clusters for Feature4, Feature1, and Feature2.

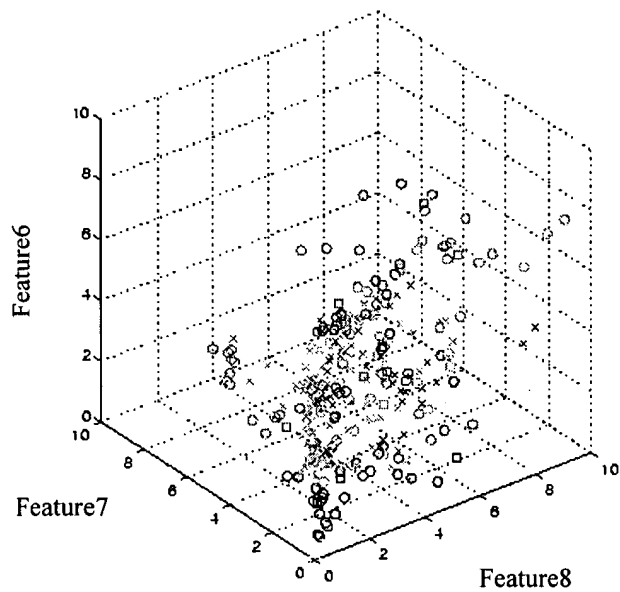


Figure 26: Distances from a given object using Feature6, Feature7, and Feature8.

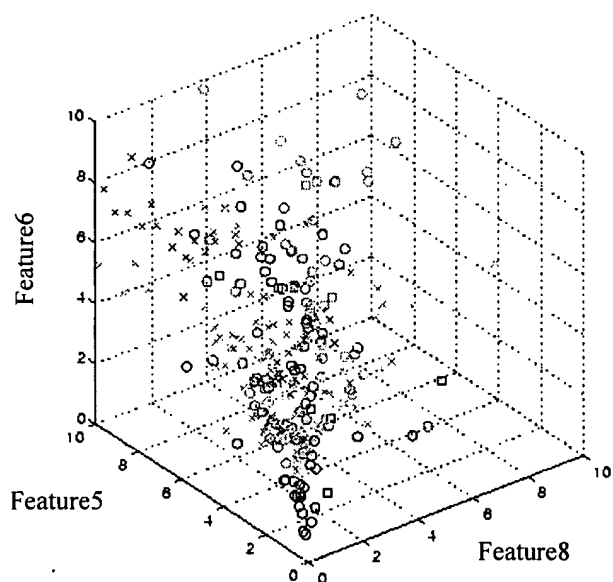


Figure 27: Distances from a given object using Feature6, Feature5, and Feature8.

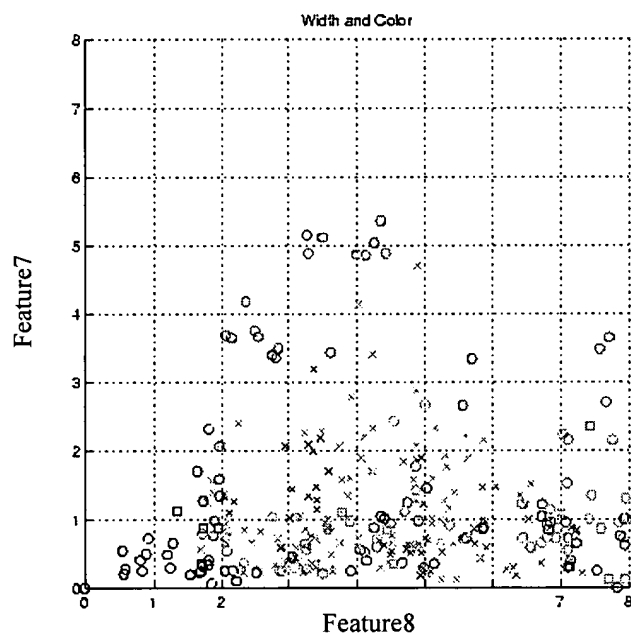


Figure 28: Distances from a given object using Feature7 and Feature8.

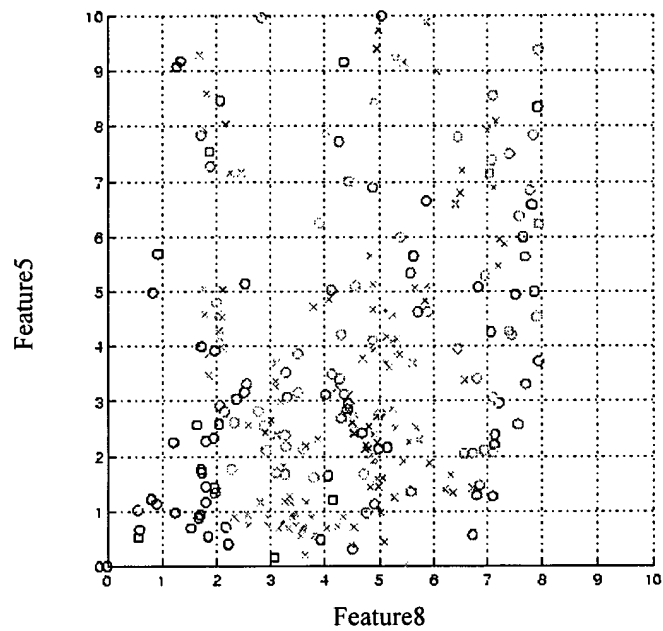


Figure 29: Distances from a given object using Feature5 and Feature8.

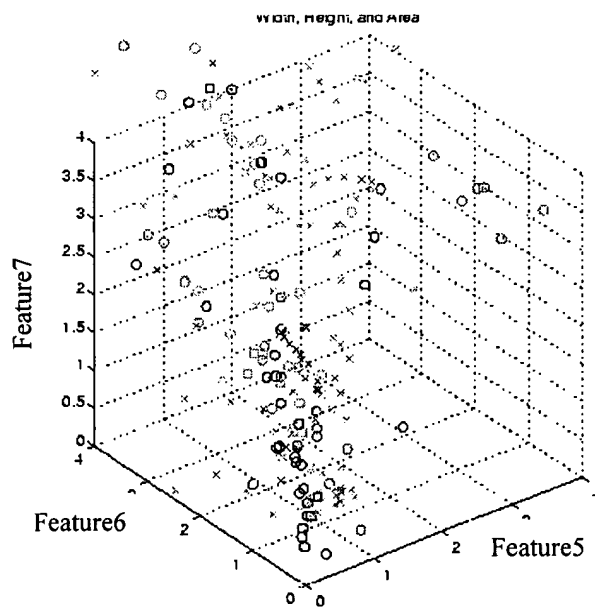


Figure 30: Distances from a given object using Feature7, Feature6, and Feature5..

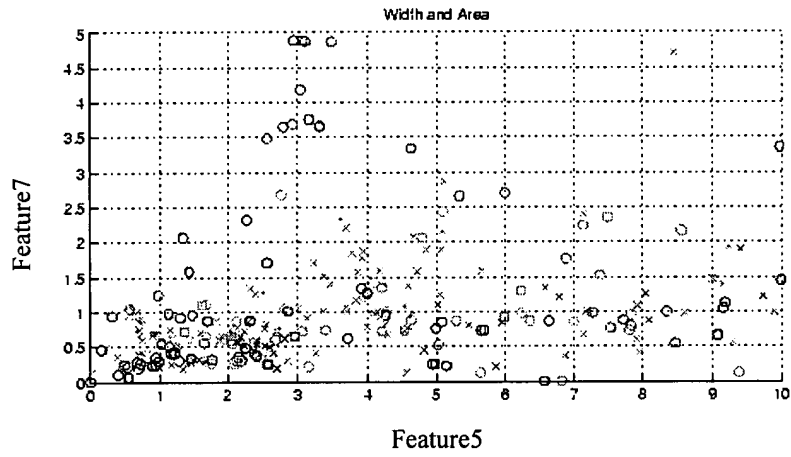


Figure 31: Distances from a given object using Feature6 and Feature5.

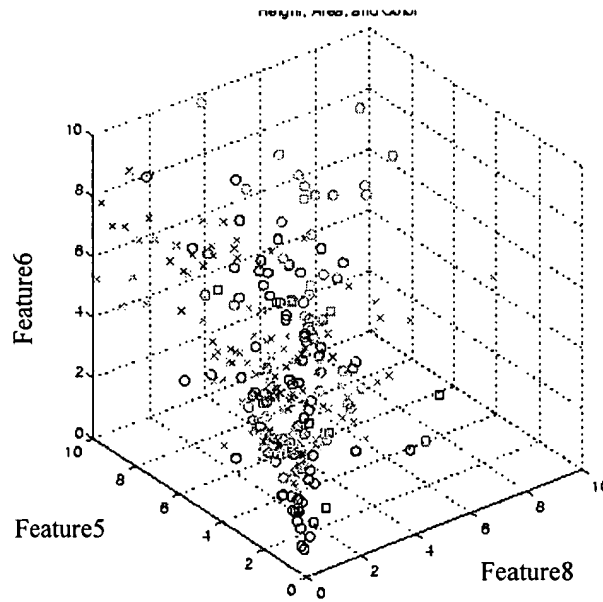


Figure 32: Distances from a given object using Feature6, Feature5, and Feature8.

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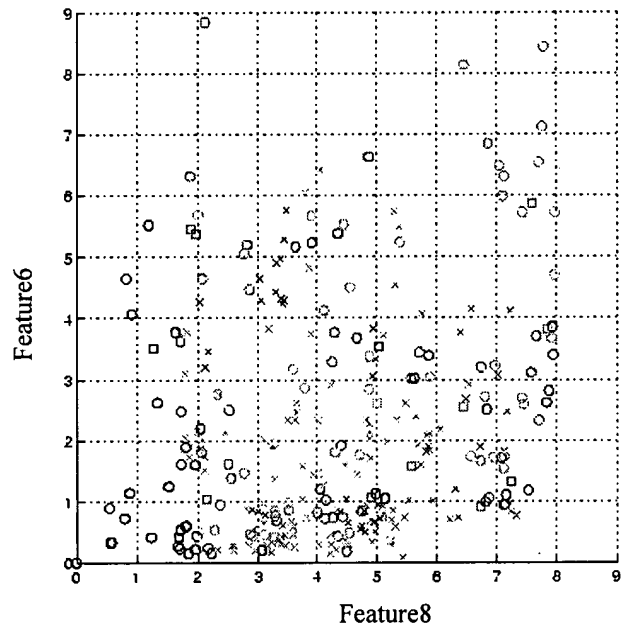


Figure 33: Distances from a given object using Feature6 and Feature8.

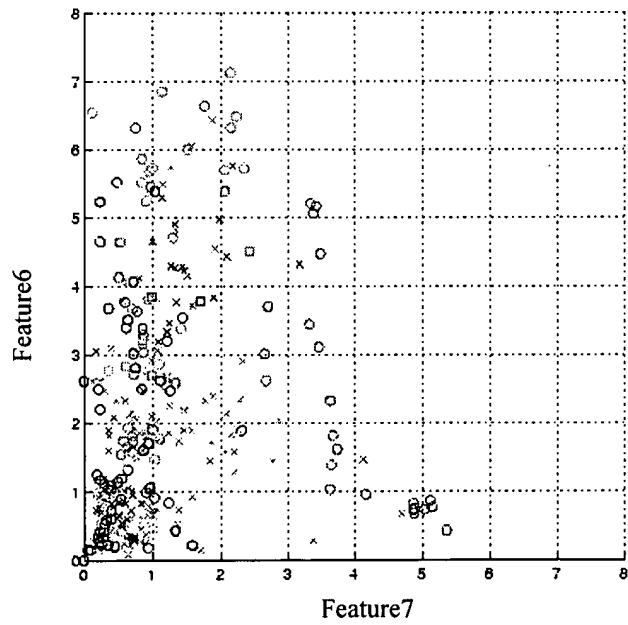


Figure 34: Distances from a given object using Feature6 and Feature7.

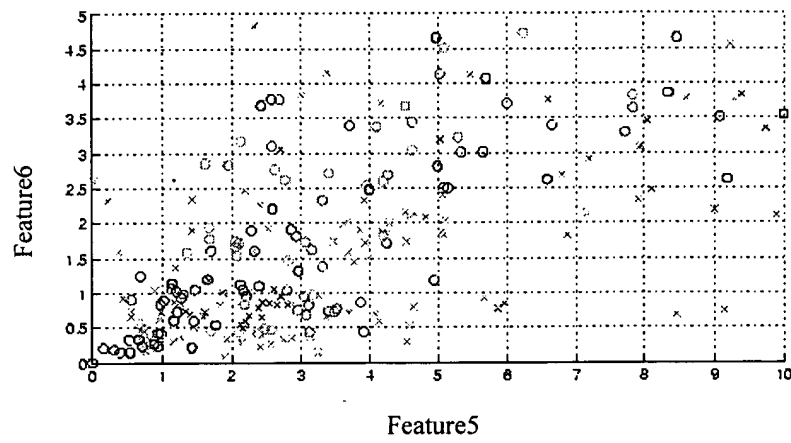


Figure 35: Distances from a given object using Feature6 and Feature5